**Task 4 – Operator Precedence Challenge**

**Algorithm** Evaluate the arithmetic part first: 3 \* 2

 Add to 5: 5 + (result)

 Compare with 10: result of 5 + 3 \* 2 > 10

 Evaluate equality: 7 == 7

 Apply negation: !(7 == 7)

 Combine both sides with &&

 Display intermediate and final results

**Psudocode**

START

CALCULATE 3 \* 2 → result1

CALCULATE 5 + result1 → result2

EVALUATE result2 > 10 → result3

EVALUATE 7 == 7 → result4

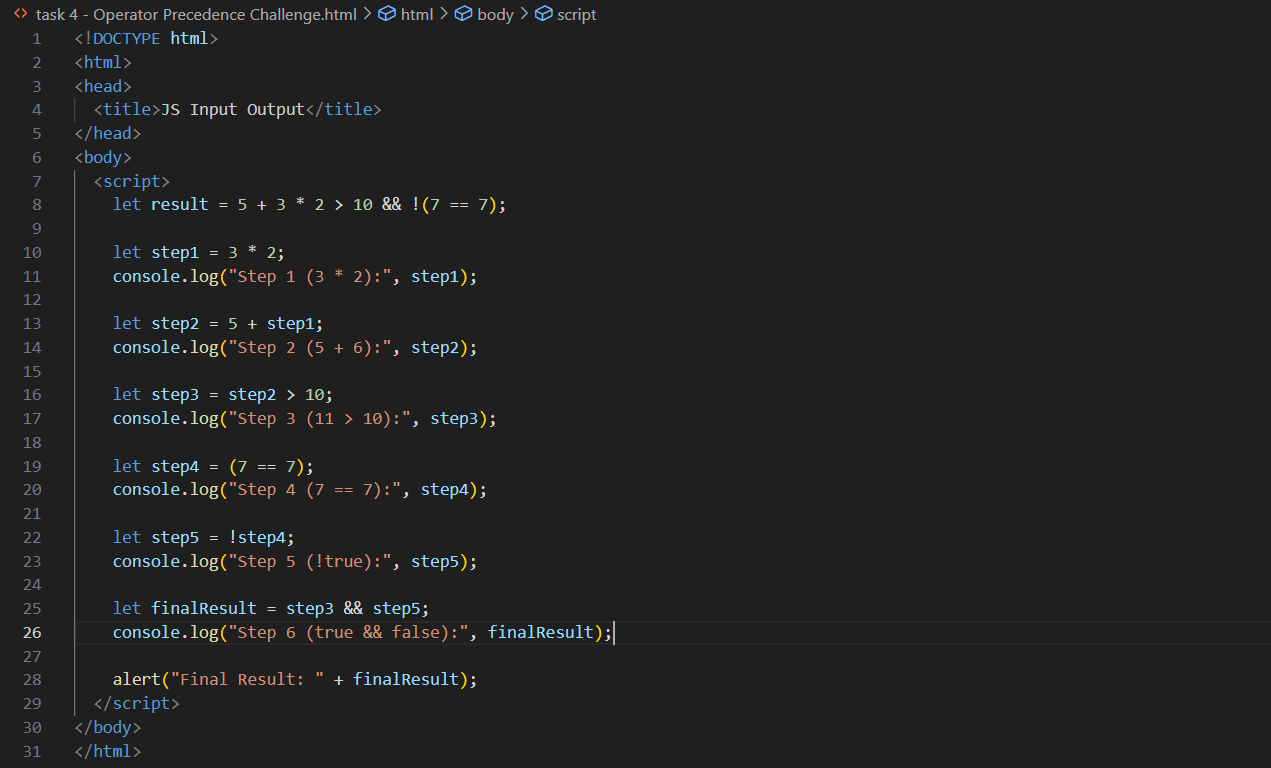
EVALUATE !result4 → result5

EVALUATE result3 && result5 → finalResult

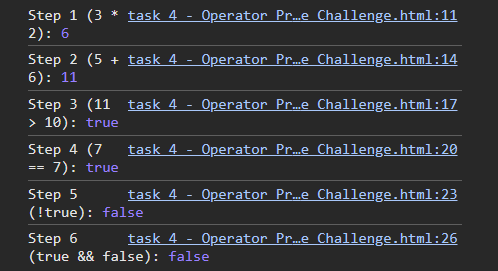
DISPLAY all steps and finalResult

END

**Code(javascript)**

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**Output (test case 1)**



**Observations**

 **Operator precedence** rules are followed strictly: \* before +, == before !, and comparisons before &&.

 The left side of && evaluates to true, the right side to false.

 Since true && false is false, the **final result** of the expression is false.

 Step-by-step tracing is useful to understand the **importance of brackets** and evaluation order in complex conditions.